SYNC Module [APIM] Programming

Programming

1. If a new APIM is being installed, install the new APIM before carrying out the following procedure. Refer to: SYNC Module [APIM] (415-00B Information and Entertainment System - General Information - Vehicles With: SYNC 3, Removal and Installation).

2. **NOTE:**
   - *If replacing the APIM do not connect the new APIM to a Wi-Fi network before completing scan tool APIM replacement programming as it may cause programming concerns.*
   - *This programming procedure deletes any phones that are paired with the SYNC® system.*
   - *To prevent timeout errors and to minimize programming time, a hardwired Internet connection is strongly recommended when programming.*
   - *A USB flash drive with a minimum storage size of 32 gigabytes (GB) is required for this procedure (obtain locally).*
       - *Some programming files are large, allow extra time for the files to download.*
       - *It is important that the diagnostic scan tool has enough available hard drive space to accommodate the programming file download.*
       - *If a "Disk Space Error" is received, create additional free space on the hard drive.*
   - *The diagnostic scan tool is required.*
       - *Make sure that the IDS version and patch software levels are up to date.*

3. Connect a battery charger to the vehicle and select the low charge setting. The negative battery charger lead must be connected to a clean chassis ground, not the negative battery post.

4. Connect the diagnostic scan tool to a power supply due to the length of time the programming requires.

5. Connect the diagnostic scan tool to the DLC.

6. Identify/enter the vehicle being programmed on FDRS.

7. Select TOOLBOX>APIM under HS-CAN1 module list.

8. **NOTE:** *There are 3 types of APIM programming available:*
   - *APIM Standard Programming — Used to update the APIM and any currently installed Applications to the latest software levels. This option is not available if the APIM is already at the latest level.*
   - *APIM Programming — Used to download configuration data to the APIM. The APIM may also be programmed, depending on current software level, when this option is selected.*
   - *APIM Replacement Programming — Used when the APIM has been replaced. This type of programming performs the required provisioning (restores software for newly installed hardware).*

9. Select one of the 3 options, and select Run. The VIN, current APIM assembly, VIP, and CIP software levels are compared to the last recorded state in the Ford online database.

10. **NOTE:** *Do not disconnect the FDRS during APIM programming unless directed by the diagnostic scan tool onscreen prompts.*

    Follow the diagnostic scan tool on-screen directions.

11. When prompted, connect the USB flash drive to the diagnostic scan tool.

12. Make sure the USB flash drive being used is formatted correctly. To see the available drives, hold down the Windows icon keyboard key and press the E keyboard key. Right click on the USB flash drive, and select Properties. If "File system" under the General tab is not exFAT, the drive must be formatted. To format the USB flash drive, right click on the USB flash drive, select Format, select "exFAT" for the File system, and select "Default allocation size" for the Allocation unit size. De-selecting Quick Format is not necessary, and results in a more lengthy operation.

13. Follow the on-screen instructions to download software onto the USB flash drive.

14. When prompted by the diagnostic scan tool, safely remove/eject the USB flash drive from the diagnostic scan tool and connect it to the USB hub to install the software into the APIM. The update starts automatically, and may take 10 minutes or longer. It is normal for the APIM to reset during this step.

15. **NOTE:** *It is not necessary to reinsert the USB drive in the laptop (after the APIM has been updated in the vehicle) to report the update to the Ford database. This occurs automatically with the scan tool connected to the vehicle with FDRS.*

    Once the pop up stating "Installation Complete" appears, select "Close," remove the USB flash drive from the USB hub. It is normal for the APIM to reset during this step.

16. **NOTE:** *The software level installed during programming can be determined by selecting the Vehicle Identification Tab>Vehicle Info. The software level installed can also be determined from the OASIS tab on the technician service publication website. Select the "SYNC" button and "Last Recorded State — Software" displays.*

    After programming is complete, the diagnostic scan tool displays "Programming has been successfully completed."